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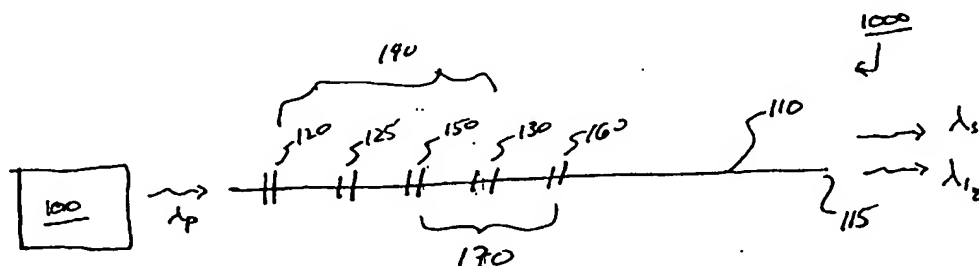
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(54) Title: **MULTI-WAVELENGTH OPTICAL FIBER**



(57) Abstract: The invention features a fiber that includes an optical fiber (110) containing a gain medium having a Raman active material with a Raman gain spectrum. The optical fiber is configured to receive energy at a wavelength  $\lambda_p$ . The fiber also includes at least three pairs of reflectors (120, 125, 150, 130, 160) disposed in the optical fiber. Each pair of reflectors forms a resonance cavity (140) with a resonance frequency.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/20817

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G02B 6/02

US CL : 385/123

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 385/123; 359/334, 341.1; 372/3,6

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
USPAT, US-PGPUB, EPO, JPO, Derwent

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,163,552 A (ENGELBERTH et al.) 19 December 2000 (19.12.2000), Figs. 3, 4, 7, column 2 line 20- column 3 line 44.	1-32, 37-80, 85-141, 151-159
X	US 5,815,518 A (REED et al) 29 September 1998 (29.09.1998), Fig. 3, column 1 line 64- column 2 line 46.	1-12, 22-23, 37-60, 70-71, 85-141, 151-159
X	US 5,323,404 A (GRUBB) 21 June 1994 (21.06.1994), Figs. 1-2, column 3 line 10-18, column 3 line 24-56, column 5 line 1-12.	1-12, 22-23, 37-60, 70-71, 85-141, 151-159
X,P	US 6,310,899 B1 (JACOBOWITZ-VESELKA et al) 30 October 2001 (30.10.2001), see the entire document.	1-12, 22-23, 37-60, 70-71, 85-141, 151-159

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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